



RESEARCH PAPER

# Prevalence of Disease Cluster in Particular Age Group in Srinagar

■ MOHMAD YOUNIS BHAT

## Correspondence to :

MOHMAD YOUNIS BHAT  
Rashtriya Bal Swasthya  
Karyakram, PHC, S.R Gunj,  
SRINAGAR (J&K) INDIA  
Email : [myounis88@gmail.com](mailto:myounis88@gmail.com)

**ABSTRACT :** We find the disease incidence and prevalence in age groups of 0-6 and 6-18 years of age, in case of both male and female children. Thirty eight diseases were studied which were divided into five clusters viz., defects at birth, deficiency diseases, childhood diseases, developmental delays including disabilities, adolescent health. The studies depict that the number of male and female students were statistically non-significant i.e. number of male and female children are statistically equal in number and disease covered under the third cluster that is childhood diseases were prevalent in both the age groups and in both sexes, hence determining no effect of sex on prevalence of disease under third cluster as well. Furthermore, in cluster third, six diseases were taken into consideration among which incidence of rheumatic heart disease was nil in both sexes and only five diseases were taken into consideration for the purpose of analysis. After analyzing childhood diseases further it was detected that dental conditions were more predominant among the five diseases covered under cluster third in both sexes and further among two age groups it was more prevalent in age group of 6-18 years.

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## KEY WORDS :

Prevalence of  
particular disease,  
Incidence of particular  
cluster of disease

Epidemiological research is based on the ability to quantify the occurrence of disease. Comparisons of health outcomes have risen in importance as a method of gaining insight with social and economic determination of health status. This study is carried out on data collected by one group of Maharaj Gunj zone, Srinagar district in Jammu and Kashmir, based on the health status of children both male and female in two age groups viz., 0-6 yrs and 6-18 yrs of age. Further study is carried out by dividing 38 diseases under consideration into 5 clusters.

## Defects at birth (C1) includes :

a) neural tube defect (b) Down's syndrome (c) cleft lip and palate (d) club foot (e) Developmental dysplasia of hip (f) congenital cataract (g) congenital deafness (h) congenital heart disease (i) retinopathy of prematurity.

## Deficiencies (C2) includes:

(a) severe anemia (b) Vitamin A deficiency (c) Vitamin D deficiency which is further subdivided (i) SAM (ii) Severe thinning (iii) obesity (d) goiter.

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**Childhood diseases (C3) includes :**

(a) skin condition (b) otitis media (c) rheumatic heart disease (d) reactive airway disease (e) dental conditions (f) convulsive disorders.

**Developmental delays including disabilities (C4) includes :**

(a) vision impairment (b) hearing impairment (c) Neuro motor impairment (d) motor delay (e) cognitive delay (f) language delay (g) behaviour disorder (Autism) (h) learning disorder (i) attention deficit hyper activity disorder (j) others.

**Adolescent health (C5) includes :**

(a) growing up concerns (b) substance abuse (c) feel depressed (d) delay in menstruation cycles (e) irregular periods (f) pain or burning sensation while urinating (g) discharge/ foul smelling discharge from the genitor-urinary area (h) pain during mensuration.

**RESEARCH METHODOLOGY**

Study was carried out by studying children's both

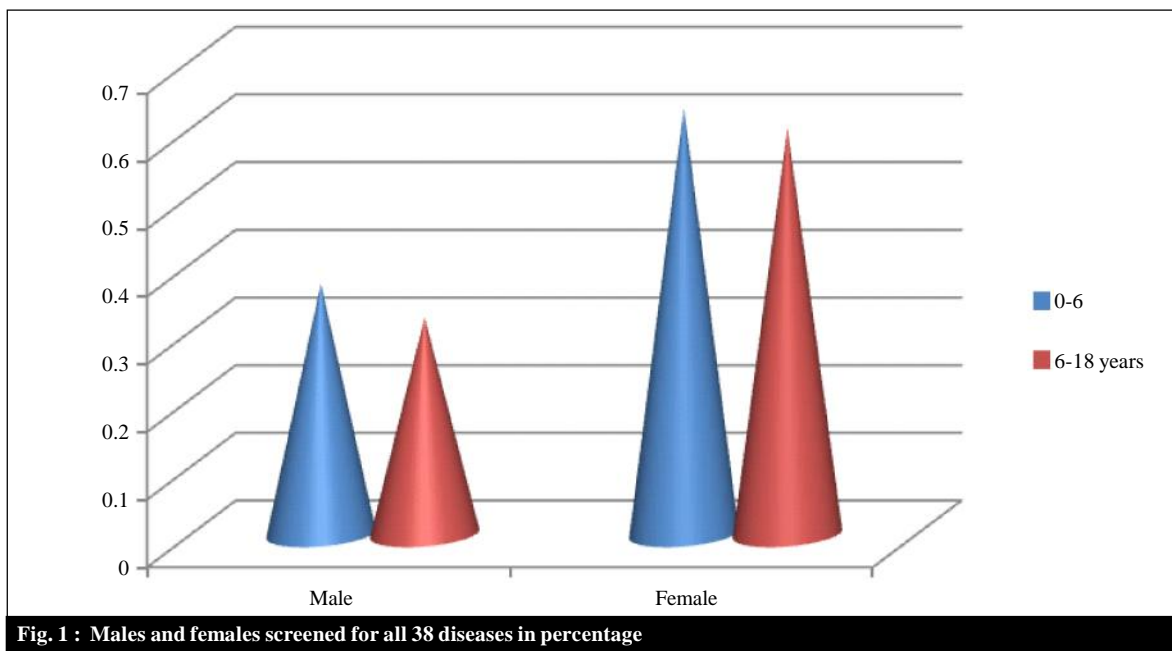
male and females under age group of 0-18 years for 38 diseases divided under five clusters. Data has been analysed to check which cluster of disease is common in the age groups under question and whether there is any effect of sex for the different disease clusters. After determining the prevalence of particular disease cluster, further incidence of particular disease among that cluster is determined. Data has been analysed by using R-software for analysis and excel for graphic presentations.

**RESULTS AND DISCUSSION**

The Table 1 shows number and percentage of males and females screened for all 38 diseases. After analyzing the data statistically. P-value was found to be greater than 0.05, indicating there is no difference in male and female groups and are statistically non-significant. This is graphically shown in Fig. 1.

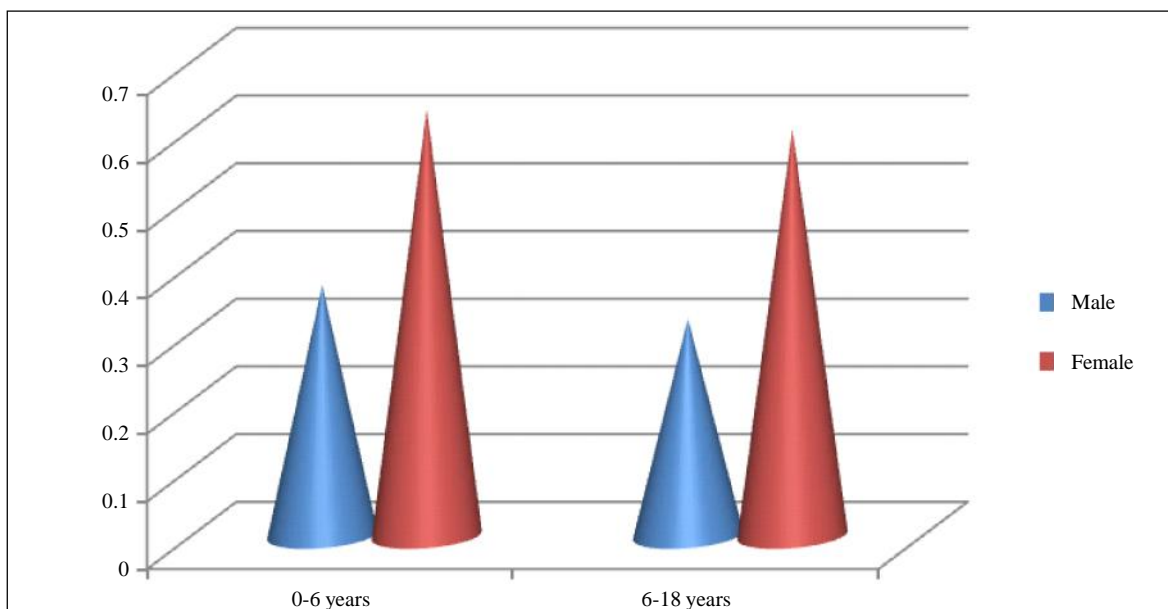
Table 2 depicts, effect of age groups on the incidence of diseases, analysis of the data as per age groups was carried out and P-value was found to be greater than 0.05 hence, age groups are statistically non-significant *i.e.* there is no relation of age group with the incidence of

Table 1 : Percentage of males and females screened for all 38 diseases				
Age group	Male	Male percentage	Female	Female percentage
0-6 years	699	0.37	869	0.63
6-18 years	677	0.32	1280	0.6

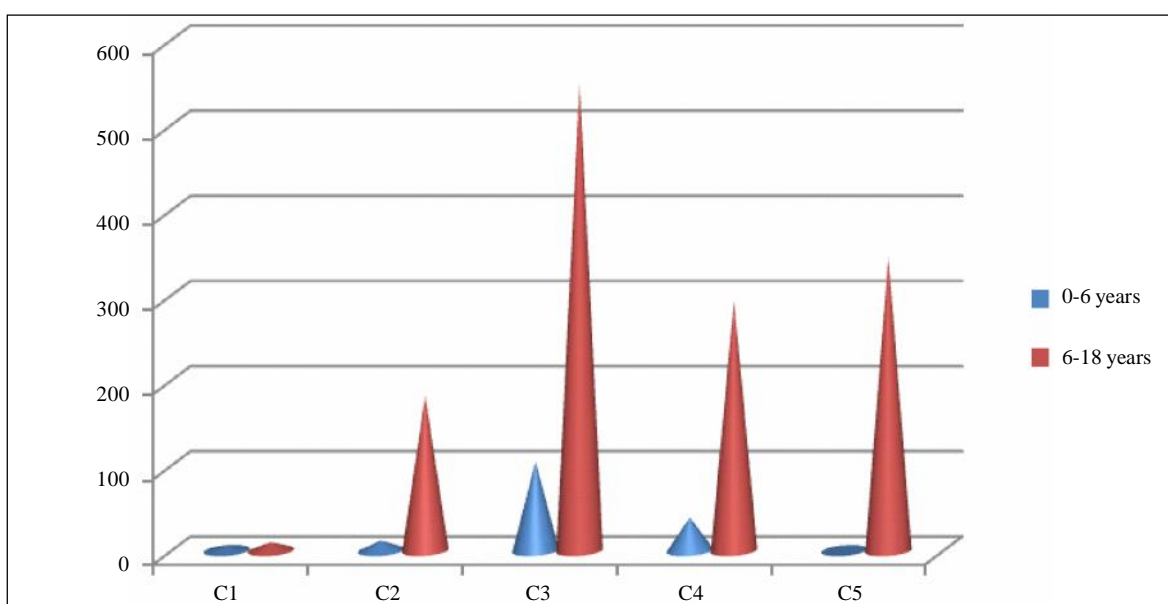


**Table 2 : Analysis of the data as per age groups**

Age group	0-6	Percentage	6-18 years	Percentage
Male	0.37	699	0.32	677
Female	0.63	869	0.6	1260

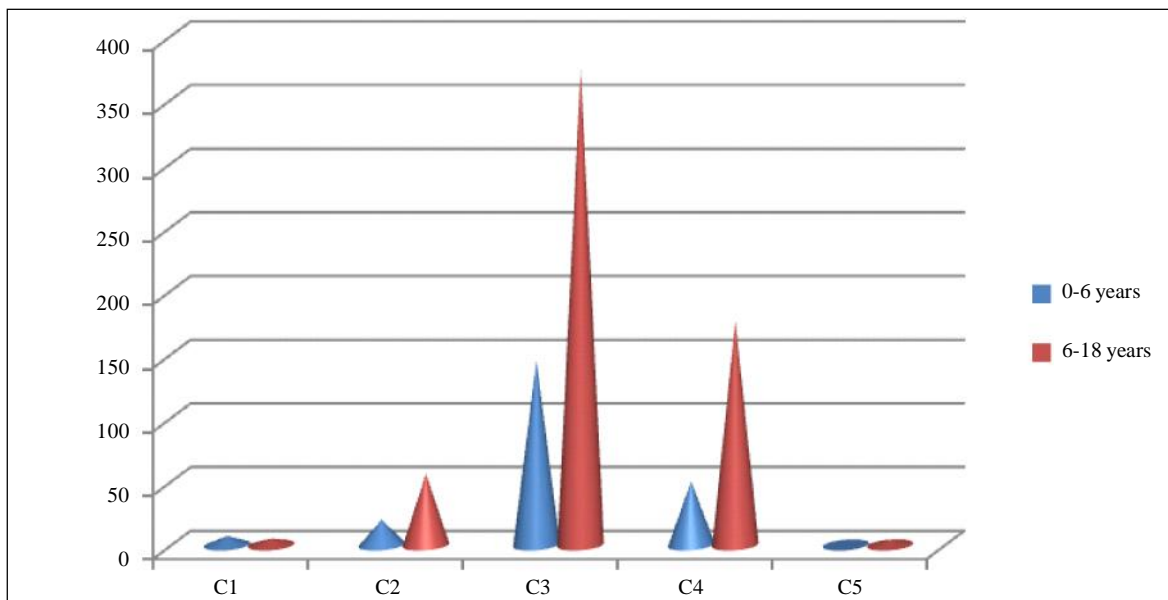
**Fig. 2 : Graphic presentation of the analysis of data as per age groups****Table 3 : Incidence of diseases clusters in two age groups among females**

Age group	C1	C2	C3	C4	C5
0-6 years	5	12	105	39	0
6-18 years	10	182	548	294	345

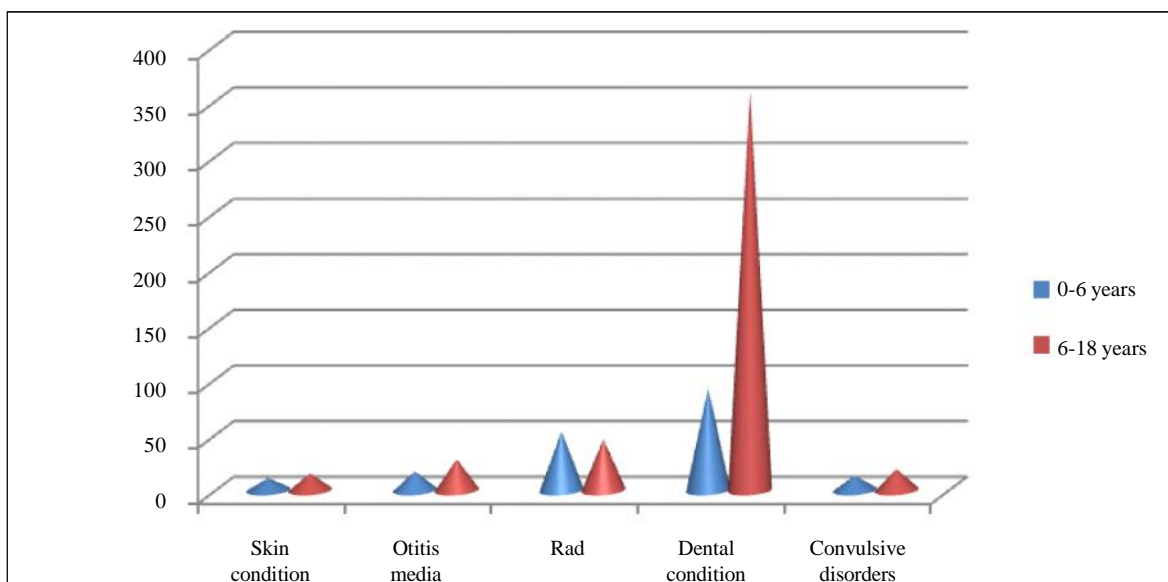
**Fig. 3 : Graphic presentation of the incidence of disease cluster in two age groups among females**

**Table 4 : Incidence of diseases cluster in two age groups among males**

Age group	C1	C2	C3	C4	C5
0-6 years	7	20	145	50	0
6-18 years	5	56	373	176	4

**Fig. 4 : Graphic incidence of diseases clusters in two age groups among males****Table 5 : Cluster third considered only by diseases covered only in the said cluster**

Age group	Skin condition	Otitis media	Reactive airway disease (Rad)	Dental condition	Convulsive disorders
0-6	11	17	53	92	13
6-18 years	15	28	46	359	19

**Fig. 5 : Graphic representation of third cluster considered only in the said cluster**

diseases. Graphic presentation is also given in Fig. 2.

Table 3 is constructed which shows incidence of disease clusters in two age groups among females. Analysis of data was conducted which reveals P-value less than 0.05 and diseases under third cluster (childhood diseases) were more prevalent in females in both the age groups and graphical representation is shown in Fig. 3.

Table 4 is constructed which shows incidence of disease clusters in two age groups among males. Analysis of data was conducted which reveals P-value less than 0.05 and diseases under third cluster (childhood diseases) were more prevalent in males in both the age groups and graphical representation is shown in Fig. 4.

Hence from Table 3 and 4 it is clear that diseases covered under cluster third C3 are prevalent in both male and females in the age of 0-18 years.

Table 5 is constructed from cluster third only by considering diseases covered only in the said cluster having more prevalence than other five clusters studied parallel with it. Analysis of data was conducted which reveals P-value less than 0.05 hence authenticated that disease named as dental conditions was mostly occurred disease in both male and females but it was more incident in age group of 6-18 years rather than 0-6 years of age. Graphical represented in Fig. 5.

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